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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/598,893	09/14/2006	Kengo Onaka	36856.1463	1786

54066 7590 10/16/2008  
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EXAMINER
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DINH, TRINH VO

ART UNIT	PAPER NUMBER
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2821

NOTIFICATION DATE	DELIVERY MODE
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10/16/2008

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

JKEATING@KBIPLAW.COM  
uspto@kbiplaw.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/598,893	<b>Applicant(s)</b> ONAKA ET AL.	
	<b>Examiner</b> Trinh Vo Dinh	<b>Art Unit</b> 2821	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 16 June 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 13-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 13-27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |                                                                                      |                                                                   |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____                                                          | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

This is a response to amendment filed 06/16/2008. Claims 1-12 were canceled, claims 13-27 are pending in which claim 13 and 22 have been amended. In view of the amendment, the objection of claim 22 has been withdrawn and claims 22-25 are indicated allowable. However, Applicant's arguments respecting amended claim 13 to references Puente is not deemed to be persuasive. Therefore, amended independent claim 13 and dependent claims 14-21 and 26-27 are rejected as follows.

#### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 13-27 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 13, line 14 recites "along substantially the entire surface of the radiation electrode" which is unclear. Since there are three radiation electrodes recited in line 3, 6 and 9, it is unclear which one of those radiation electrodes "the radiation electrode" in line 14 refers to. As an examination's purpose, "the radiation electrode" in line 14 is best understood as "the radiation electrode of the feeding element".

Claim 13, lines 17-18 recites "surface of the radiation electrode" which is unclear. Since there are three radiation electrodes recited in line 3, 6 and 9, it is unclear which one of those radiation electrodes "the radiation electrode" in line 17 or 18 refers to. As an examination's purpose, "the radiation electrode" in line 17 or 18 is best understood as "the radiation electrode of the first non-feeding radiation element".

Claims 14-27 are rejected because they depend on the rejected based claims.

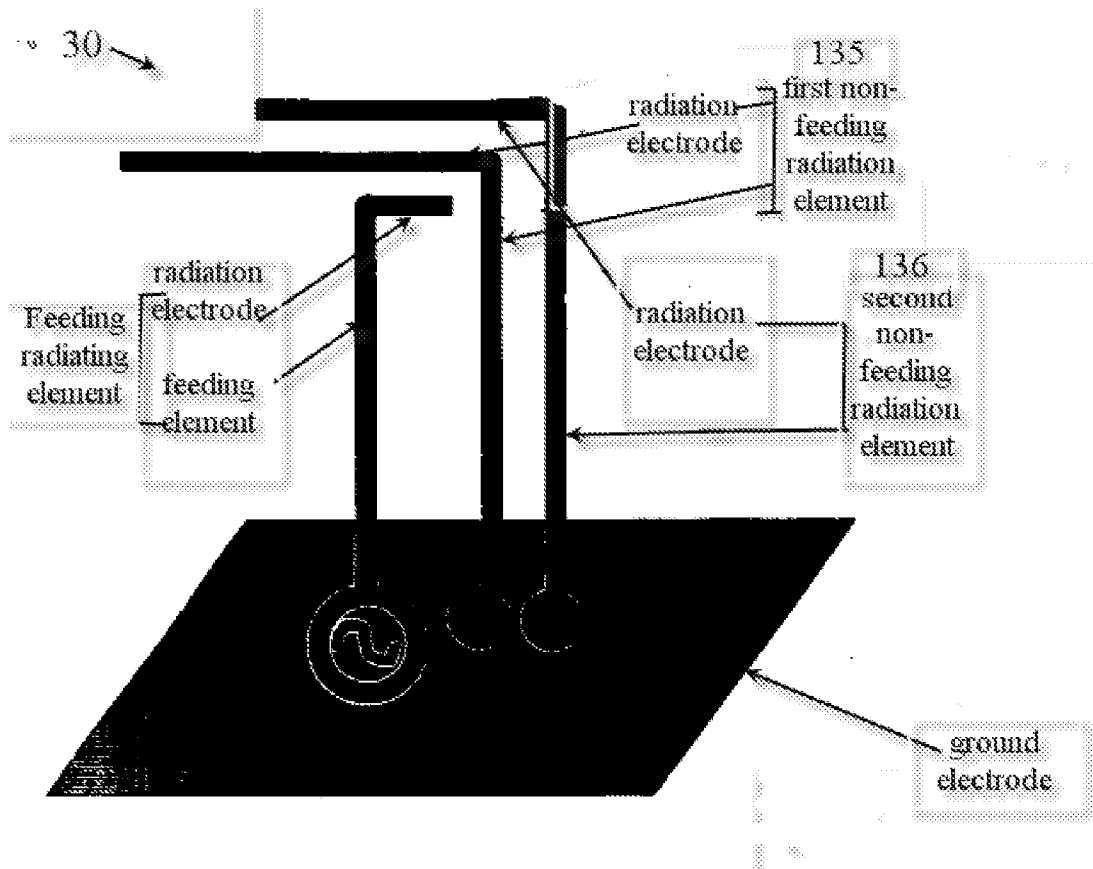
***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

4. Claims 13-16, 19-20 and 27 are rejected under 35 U.S.C. 102(a) as being anticipated by PUENTE LALIARDA (WO 2004/025778 A1 of record).



Respecting claim 13, PUENTE discloses, in Fig. 7, an antenna (30) comprising a substrate (p. 14, lines 3-4) having a ground electrode, a feeding radiation element (in an

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above Figure) including feeding means and including a radiation electrode outside a dielectric, and a first non-feeding radiation element (136) including a radiation electrode outside a dielectric substance, a second non-feeding radiation element (135) including a radiation electrode outside a dielectric substance wherein the first non-feeding radiation element (136) and the second non-feeding radiation element (135) are electrically connected to the ground electrode (p. 13, line 9),

wherein the feeding radiation element is disposed on the ground electrode such that a surface of the radiation electrode of the feeding radiation element is substantially parallel to a surface of the ground electrode **along substantially the entire surface of the radiation electrode** (as shown in the above drawing) **of the feeding radiation element** and such that the feeding radiation element is disposed in the vicinity of a predetermined side of four peripheral sides of the ground electrode (i.e. at the left-hand side antenna 30).

PUENTE further discloses the first nonfeeding radiation element (136) is disposed on the ground electrode such that a surface of the radiation electrode (as shown in the above drawing) is substantially parallel to the surface of the ground electrode **along substantially the entire surface of the radiation electrode** (as shown in the above drawing) **of the first non-feeding radiation element** (136) and such that the first non-feeding radiation element (136) is disposed in the vicinity of the predetermined side wherein the second nonfeeding radiation element (135) is disposed such that the second nonfeeding radiation element (135) is adjacent to both the feeding radiation element and the first non-feeding radiation element (136) and such that at least part of the second nonfeeding radiation element (135) projects outside the ground electrode from the

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predetermined side (i.e. one end of the element 135 projects partly outside the left hand side of the ground electrode of antenna 30, as depicted in Fig. 7).

Respecting claims 14-16 and 19, PUENTE further discloses the dielectric substance being defined by a single base member (Fig. 7), or being defined by at least two separate dielectric base members (Fig. 14), the second non-feeding radiation element (135) is electrically connected at a substantially central location of the desired side, of the ground electrode, and the ground electrode is defined by a conductor pattern that is provided on the substrate and that has a substantially rectangular shape (Fig. 7) when viewed in plan.

Respecting claims 20 and 27, PUENTE discloses, in Fig. 7) the dielectric substance (p. 14, lines 3-4) being defined by a dielectric base member, and the radiation electrode of each of the feeding radiation element, the first non-feeding radiation element (136), and the second non-feeding radiation element (135) is provided on the dielectric base member. Furthermore, PUENTE discloses a portable radio communication apparatus comprising the antenna (page 8, lines 17-19).

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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6. Claims 17-18, 21 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over PUENTE.

Respecting claims 17-18, PUENTE discloses every feature of the claimed invention as discussed above in claim 13. However, PUENTE fairly suggest a triple resonance. PUENTE further discloses, in Fig. 12, a planar shape and an overall size of the radiation elements (147, 148) are different. It is obvious to accordingly adapt the antenna of PUENTE to comprise radiation electrodes having a different planar shape and overall size, so that the resonance frequency bands of the radiating elements are different for providing a triple resonance antenna. Such modification is merely well known in the art to provide the antenna with ability of operating at multiple frequencies.

Respecting claim 21, PUENTE discloses every feature of the claimed invention except insert molding and thermoplastic. However, forming radiation elements by insert or outside molding using a thermoplastic resin as the dielectric base member, are commonly known fabrication details. Therefore molding radiation elements and using a thermoplastic as the dielectric base would have been deemed obvious to one skill in the art.

Respecting claim 26, PUENTE discloses every feature of the claimed invention except a chip capacitor or inductor. However, installing a chip capacitor or inductor in an electrical connection path between the radiation electrodes and the ground electrode is a matter of usual design. Therefore, to provide PUENTE' antenna with a chip capacitor or an inductor would have been deemed obvious to one skill in the art for matching desired antenna resonance frequencies.

***Allowable Subject Matter***

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7. Claims 22-25 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

8. The following is a statement of reasons for the indication of allowable subject matter:

The cited art of record fail to teach the dielectric substance is defined by at least a first dielectric base member and a second dielectric base member, and the radiation electrode of each of the feeding radiation element and the first non-feeding radiation element is provided on the first dielectric base member, and the radiation electrode of the second non-feeding radiation element is provided on the second dielectric base member that is different from the first dielectric base member on which the radiation electrode of each of the feeding radiation element and the first non- feeding radiation element is provided.

***Response to the arguments***

9. Applicant's arguments with respect to amended claim 13 have been considered but are moot in view of the rejection discussed above.

With respect to the rejections of dependent claims 14-21 and 26-27 which employing the additional teaching of the cited arts. Applicant has not offer any specific argument thereagainst. Accordingly, no further comments concerning the rejections of the dependent claims are necessary.

***Conclusion***

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).



A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

***Inquiry***

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Trinh Vo Dinh whose telephone number is (571) 272-1821. The examiner can normally be reached on Monday to Friday from 9:30AM to 6:00PM. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglas Owens, can be reached on (571) 272-1662. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you

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have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*Art Unit 2821*

*October 06, 2008*

*/Trinh Vo Dinh/*

*Primary Examiner, Art Unit 2821*